# **2008 Climate Summary for Rockford**

| Temperature |                          |               |               |           | Precipitation |           |       |           |
|-------------|--------------------------|---------------|---------------|-----------|---------------|-----------|-------|-----------|
| Month       | High                     | Low           | Average       | Departure | Total         | Departure | Snow  | Departure |
| January     | 30.5º                    | 11.5º         | <b>21.0</b> º | +2.0°     | 1.14"         | -0.27"    | 17.6" | +7.3"     |
| February    | <b>27.7°</b>             | 12.7°         | 20.2°         | -4.5°     | 3.15"         | +1.81"    | 25.8" | +17.9"    |
| March       | 42.1°                    | 25.5°         | 33.8°         | -2.3°     | 2.42"         | +0.03"    | 6.8"  | +1.2"     |
| April       | 60.4º                    | 39.5⁰         | 50.0⁰         | +2.1º     | 5.42"         | +1.80"    | Т     | -1.4"     |
| May         | 69.3º                    | <b>45.1</b> º | <b>57.2</b> ⁰ | -2.3º     | 3.12"         | -0.91"    | 0.0"  | 0.0"      |
| June        | 80.9º                    | 60.0º         | 70.5⁰         | +1.7º     | 6.27"         | +1.47"    | 0.0"  | 0.0"      |
| July        | 83.5°                    | 62.9°         | 73.2°         | +0.3°     | 7.35"         | +3.25"    | 0.0"  | 0.0"      |
| August      | 82.2°                    | 60.4°         | 71.3°         | +0.4°     | 1.91"         | -2.30"    | 0.0"  | 0.0"      |
| September   | 75.9°                    | 55.5°         | 65.7°         | +2.9°     | 6.36"         | +2.89"    | 0.0"  | 0.0"      |
| October     | 62.4°                    | 41.3°         | 51.9°         | +0.9°     | 1.68"         | -0.89"    | T     | -0.1"     |
| November    | 46.7°                    | 30.8°         | 38.8°         | +1.6°     | 1.39"         | -1.24"    | 5.2"  | +2.6"     |
| December    | <b>28.5</b> <sup>⁰</sup> | 10.4º         | 19.5⁰         | -4.9º     | 4.01"         | +1.95"    | 28.9" | +18.1"    |
| Total/Ave   | <b>57.5</b> <sup>⁰</sup> | 38.0⁰         | <b>47.7</b> º | -0.2º     | 44.22"        | +7.59"    | 84.3" | +45.6`"   |

# **Yearly Extremes:**

Highest Temperature:

93 on September 2<sup>nd</sup>

Lowest Temperature:

-16 on January 25<sup>th</sup>

Most Precipitation in One Day:

2.38 inches on September 4<sup>th</sup>

Most Snowfall in One Day:

• 9.7 inches on February 6<sup>th</sup>

# Records set during 2007:

Temperatures:

Highs:

❖ January 7<sup>th</sup> (63)

Lows:

❖ None

#### Highest Lows:

None

## Lowest Highs:

❖ February 20<sup>th</sup> (14)

#### Monthly:

❖ Warmest January Temperature (Jan 7<sup>th</sup> - 63t)

#### Seasonal:

Latest 90 degree High Temperature on record (Sep 1<sup>st</sup>)

#### Yearly:

None

#### Precipitation:

## One Day Precipitation:

- February 17<sup>th</sup> (1.15")
- March 31<sup>st</sup> (1.19"t)
  April 10<sup>th</sup> (1.48")
- ❖ June 8<sup>th</sup> (2.19")
- July 12<sup>th</sup> (1.95")
  September 4<sup>th</sup> (2.38")

## Monthly Precipitation:

- ❖ 3<sup>rd</sup> Wettest February (3.15")
- ❖ 13<sup>th</sup> Wettest April (5.42")
- ❖ 9<sup>th</sup> Wettest July (7.35")
- ❖ 3<sup>rd</sup> Wettest December (4.01")

## Seasonal Precipitation:

❖ 6<sup>th</sup> Wettest Winter 2007-08 (7.47")

#### One Day Snowfall:

- ❖ January 22<sup>nd</sup> (3.3")
- ❖ February 3<sup>rd</sup> (3.8")
- ❖ February 29<sup>th</sup> (0.7")
- ❖ April 25<sup>th</sup> (Tt)
- ♣ April 29<sup>th</sup> (Tt)
- ❖ December 16<sup>th</sup> (3.6")
- ❖ December 19<sup>th</sup> (6.8")

## Monthly Snowfall:

- ❖ 2<sup>nd</sup> Snowiest February (25.8")
- ❖ 2<sup>nd</sup> Snowiest December (28.9")

#### Seasonal Snowfall:

Snowiest Winter 2007-08 on record (65.1")

#### Yearly:

- ❖ 2<sup>nd</sup> Snowiest Snow Season on Record 2007-08 (72.9")
- ❖ 8<sup>th</sup> Wettest Year on record (44.22")
- Snowiest Annual Snowfall-2008 (83.8")

## **JANUARY**

January 2008 will be one for the record books with the wild weather that occurred throughout the month. The most significant event that occurred was on the 7<sup>th</sup> when temperatures rose to 63 degrees and severe weather broke out across northern Illinois. This high temperature broke the high temperature record for that day and also tied a record for the warmest temperature ever in Rockford's history. A line of thunderstorms developed in the middle of the afternoon, with one of the storms turning tornadic across northern Boone and McHenry counties. The tornado started to the north of Poplar Grove and tracked northeastward to the north of Capron and Harvard. Damage from this tornado was assessed at being EF3 with the worst damage coming to the northeast of Poplar Grove and in the town of Lawrence.

After a few minor snows and some cold spells, temperatures started rising on the 29<sup>th</sup> up to 49 degrees. A strong cold front then came through during the night and by midnight the temperature dropped to -1 degrees, which makes it one of the top 5 largest temperature swings in Rockford's history. The month ended on a snowy note as a low pressure system tracked through southern Indiana and dropped about 3 to 6 inches of snow across the Rockford area. The warmest temperature of the month was the 63 degrees on the 7<sup>th</sup>, while the coldest temperature was -16 degrees on the 25<sup>th</sup>.

## **FEBRUARY**

When people look back on February, the one word they'll think of is...snow. February 2008 will go into the record books as the 3<sup>rd</sup> wettest and 2<sup>nd</sup> snowiest February in the 100+ year history of the station. The snowfall total put a cap on this meteorological winter as the snowiest in Rockford's history (as well as 6<sup>th</sup> wettest). The heaviest one day snow was on the 6<sup>th</sup> when 9.7 inches of snow fell. Four daily records were set during the month, including the lowest high on the 20<sup>th</sup>, most precipitation on the 17<sup>th</sup>, and most snowfall on the 3<sup>rd</sup> and 29<sup>th</sup>. Previously, it had never snowed on the leap day, but this year 0.7" fell in the early morning hours. Overall, temperatures were below normal by 4 degrees on the month. The highest temperature was 42 on the 17<sup>th</sup>, while the lowest temperature was -6 on the 10<sup>th</sup> and 11<sup>th</sup>.

# **MARCH**

March ended up being fairly quiet weather-wise. It will likely be remembered for what seemed to be an extension of winter where temperatures were rarely above normal and on the whole finished below normal temperature wise. Precipitation ended right around normal along with snowfall, most of which fell on the 21<sup>st</sup>. One record was tied on the 31<sup>st</sup> when 1.19" of rain fell. The warmest temperature of the month was on the 31<sup>st</sup> when it reached 61, while the coldest temperature occurred on the 8<sup>th</sup> when it dipped down to 8.

## **APRIL**

We had another fairly quiet month of weather across the Rockford area in April. While the average temperature for the month was over 2 degrees above normal, at times we were still reminded of our cold winter as low temperatures frequently went below normal and there even was some late April snow on the 28<sup>th</sup> and 29<sup>th</sup>. There was only one day with severe weather across the region and that was on the 25<sup>th</sup> when hail was the main hazard. Temperatures dropped from 78 (highest of the month) on down to 42 degrees within a matter of hours that evening. The lowest temperature of the month was on the 2<sup>nd</sup> when it dipped to 25 degrees. One record was set during the month when 1.48" of precipitation fell on the 10<sup>th</sup>, while two records were tied during the month, the first being the trace of snow (actually hail) on the 25<sup>th</sup> and the second being the trace of snow on the 29<sup>th</sup>.

## **MAY**

Add another quiet month onto the books as the weather pattern remained quiet...and somewhat on the cool side. Temperatures for the month ended up over two degrees below normal as 19 out of the 31 days were cooler than normal. Perhaps the most notable weather event was the Pneumonia front that came down along the western shore of Lake Michigan on the night of the 26<sup>th</sup>. Temperatures out ahead of this front were in the mid 70s and dropped into the mid 40s within an hour of passage along the lakeshore and into the mid 50s across north central Illinois. The highest temperature for the month was 82 degrees which was reached on the 6<sup>th</sup>, 25<sup>th</sup>, and 26<sup>th</sup>, while the coolest temperature was 35 degrees which occurred on the 4<sup>th</sup>. No records were broken during the month.

# **JUNE**

The severe weather season officially took off during the month of June with multiple events throughout the month. The most noteworthy day across north central Illinois was on the late night of the 12<sup>th</sup> when tornado touched down in Boone County south of Belvidere. This tornado developed out ahead of a squall line that caused damage across most of northern Illinois. After this event, there were quite a few more severe hail and wind events across the region. As for the climatology for the month, one record was broken on the 8<sup>th</sup> when 2.19" of rain fell. Every monthly stat was higher than normal, with the warmest day coming on the 5<sup>th</sup> when the high reached 88 degrees, while the coldest temperature of the month was on the 19<sup>th</sup> when it dipped down to 52 degrees.

## **JULY**

July was the month of the squall line as there were multiple episodes of severe weather. Damaging winds and large hail were the main culprits from these storms with no tornadoes reported throughout the month. Heavy rain was also an issue with all of these strong storms which caused the monthly rainfall amount to be over three inches above normal for July. Temperatures were near normal with the warmest days being the 16<sup>th</sup> when it hit 89, while the coldest day was the 4<sup>th</sup> when the mercury dropped to 51. One record was set in July when 1.95" of rain fell on the 12<sup>th</sup>.

### **AUGUST**

The main weather story from August was the derecho that came through the region on the 4<sup>th</sup>. This line of storms caused a swath of damage from north central Illinois all the way into northwest Indiana. Along this line of storms there were multiple rotations that spun up along it and led to brief tornadoes. Some damage was reported in Mount Morris with this storm as it came through. The lightning with this storm was also quite substantial with over 40,000 cloud to ground lightning strikes reported between 5pm and 10pm. After this storm carved its path through the region, the weather went quiet and pleasant for the rest of the month with temperatures hovering near normal. Over half of the month's rainfall came on the 4<sup>th</sup> with just light amounts the rest of the way. The one record for the month came as there were no 90 degree days at all during the summer. This record finally came to an end on September 1<sup>st</sup>, but will go down as the latest 90 degree high in Rockford's history to date. The warmest temperature of the month was 89 coming in on the 1<sup>st</sup> and 31<sup>st</sup>, while the coolest temperature was 52 degrees on the 30<sup>th</sup>.

## <u>SEPTEMBER</u>

Chalk up another wet month on the record books for the Rockford area after a dry August. The heaviest rain came to the region on the 4<sup>th</sup> as the remnants of the tropical system Gustav tracked through northern Illinois. This rainfall broke the previous record with 2.38" falling on the 4<sup>th</sup>. The Rockford area was spared by the heavy rains of the 12<sup>th</sup> thru 14<sup>th</sup>, but counties to the south and east were not so lucky. Over three inches of rain did fall at Rockford over this time span, but no significant flooding was reported. After this system moved through, the rest of the month was actually very pleasant with above normal temperatures and dry. While a 90 degree day was not recorded in summer, the first two days of September did record 90 degree days. The 2<sup>nd</sup> was the warmest day of the month as the temperature rose to 93 degrees, while the coolest temperature was recorded on the 9<sup>th</sup> when it dipped to 43 degrees.

## **OCTOBER**

The weather pattern went back to being less active for October with rainfall being slightly less than normal and temperatures ending up right about normal. The

second week of the month featured a warm spell where the highs climbed to about 20 degrees above normal. Received the first traces of snowfall toward the end of the month, but otherwise there wasn't much going on. The warmest day was on the 12<sup>th</sup> when the high temperature of 85 degrees tied the previous records from 1930. Otherwise, no other records were broken this month. The coldest temperature occurred on the 28<sup>th</sup> when it dipped to 26 degrees.

## **NOVEMBER**

Another quiet month went down on the books for the region for November. The first real snow storm came through on the last day of the month. This storm lasted into the first of December and dumped about 3 to 6 inches of snow across the region. Otherwise, the average temperature for the month was just above normal with precipitation being over an inch below normal and snowfall being exactly double the norm. No records were broken during the month at Rockford. The warmest temperature of the month was 74 on the 3<sup>rd</sup> while the coldest temperatures came on the 21<sup>st</sup> when it dropped down to 14 degrees.

## **DECEMBER**

The snow storm that started the month was a sign of things to come for the rest of the month. From the 1<sup>st</sup> on up until Christmas day, there were only 3 days where the average temperature for the day climbed above the normal...and two of those days were just 2 degrees higher. Over this same period, there were 12 days where measureable snow fell at Rockford Airport and another 9 that reported a trace. That means that there were only 3 days that did not receive some sort of precipitation from the 1<sup>st</sup> up until Christmas.

There were two notable rapid temperature drops during the month. The first came on the night of the 14<sup>th</sup> into the morning of the 15<sup>th</sup> when temperatures dropped from the upper 40s down to the single digits within a matter of hours. The second drop came on the night of the 27<sup>th</sup> into the morning of the 28<sup>th</sup> when the temperature dropped from around 50 into the low 20s.

Perhaps the most notable storm system that came through was on the night of the 18<sup>th</sup> into the morning of the 19<sup>th</sup> when quick moving low pressure system tracked through the region. This left the Rockford area with about 8 to 10 inches of a wet, heavy snow.

Cold air then came down across the region on the 21<sup>st</sup> with strong westerly winds that led to blizzard conditions and wind chills dropping to -30F and lower. Another system came through on the 23<sup>rd</sup> that dumped about 3 to 5 inches of snow across most of northern Illinois.

After a brief lull in action on Christmas Day, conditions rapidly changed overnight into the morning on the 26<sup>th</sup> as a band of freezing rain coated the Rockford area with a tenth of an inch of glaze ice. This caused the shutout of major interstates t

due to driving conditions being near impossible. Luckily, traffic was lighter than usual due to the holiday and temperatures rose through the morning allowing the ice to melt. Temperatures continued to rise through the day as warm air moved in with strong winds from the south. As this warm air mass moved in during the evening of the 26<sup>th</sup>, the 3 to 10 inch snow pack across the region began to rapidly erode in a scene that can be described as 'blizzard-like' conditions with the snow seemingly steaming from eroding so fast. This dense fog covered most of the region through the 27<sup>th</sup> when temperatures reached 50. With a quickly eroding snow pack and heavy rain, flooding became a concern with almost every river gage in northeast going into flood stage.

The three days post-Christmas included almost every type of hazard known to the Midwest with all of the following headlines active at one point or another, and sometimes all at the same time, during this period: Freezing Rain Advisory, Dense Fog Advisory, Wind Advisory, Flash Flood Watch, Flash Flood Warning, Severe Thunderstorm Warning, Tornado Watch, Flood Warning, and Gale Warning. All in all, it was a proper way to end a month that ends up being in the Top 3 wettest Decembers of all time and in the Top 2 snowiest Decembers. Not to mention that the precipitation that accumulated in this month went on to put Rockford within the Top 10 wettest on record dating back to 1905.

Needless to say that those temperatures for the month were below, while precipitation was over 2 inches above normal and snow totals being over 17 inches above the norm. The warmest temperature of the month came on the 27<sup>th</sup> when it reached 49, while the coldest temperature came on the 21<sup>st</sup> when the mercury dropped to -8. 2 snowfall records were broken during the month with the first coming on the 16<sup>th</sup> when 3.6 inches fell and the other coming on the 19<sup>th</sup> when 6.8 inches fell.

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